



Modular Photonics

Compact Mode Selective Solutions

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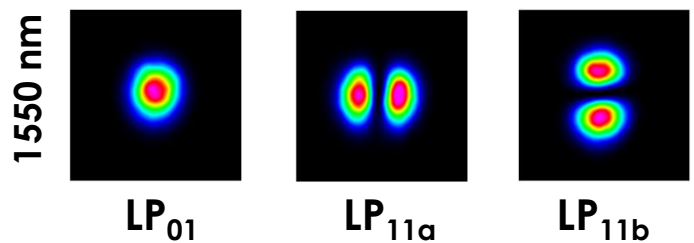
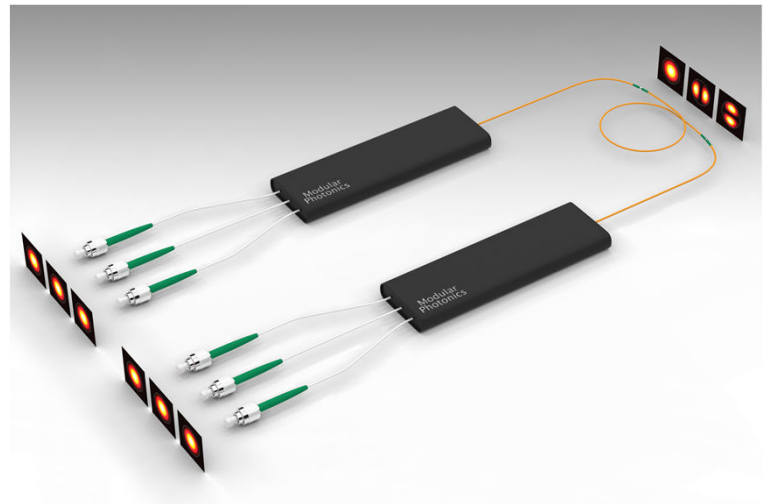
LPMUX3 Series

Key Features

- ▶ Compact integrated chip
- ▶ 600 to 1700 nm operation wavelength
- ▶ Ultra-broadband operation ($\Delta\lambda/\lambda > 0.4$)
- ▶ > 18 dB mode coupling ratios
- ▶ > 18 dB mode extinction ratios
- ▶ IL < 2.5 dB, PDL < 0.1 dB

Research Applications

- ▶ Mode-division multiplexing
- ▶ Multi-parameter distributed fibre sensing



LPMUX - Mode-multiplexers for research

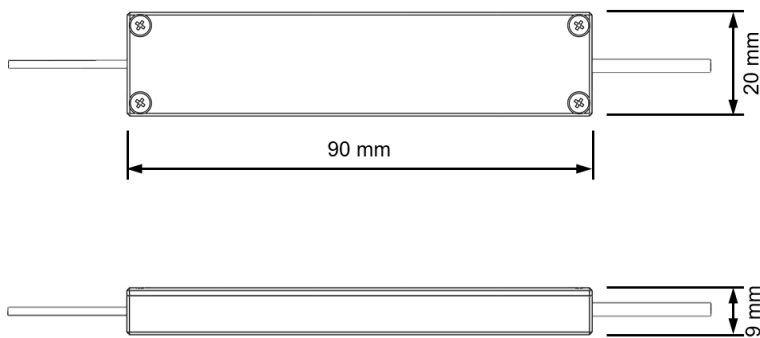
The LPMUX3 series of mode multiplexers allow for mode-selective excitation of the LP_{01} , LP_{11a} and LP_{11b} modes of a few-mode fibre with state-of-the-art performance over ultra-broad wavelength ranges. The LPMUX3 series is ideal for research applications such as mode-division multiplexing and fibre sensing.

CONTACT

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Specifications | LPMUX3-1550

Mode Multiplexer | 3 Modes (S+C+L Band)



OVERVIEW

- Compact integrated device
- Ultra-broadband mode multiplexing (LP₀₁, LP_{11a}, LP_{11b})
- > 18 dB mode extinction
- IL < 2.5 dB, PDL < 0.1 dB
- Custom orders available: connectors, wavelengths, fibre lengths.

Parameter	Value	Typical
† Operating Wavelength	1450 – 1650 nm	–
^{1,*} Insertion Loss LP ₀₁	<2 dB	1.4 dB
^{1,*} Insertion Loss LP _{11a}	<2.5 dB	1.9 dB
^{1,*} Insertion Loss LP _{11b}	<2.5 dB	1.9 dB
*Mode-Extinction Ratio LP _{11a}	>18 dB	20 dB
*Mode-Extinction Ratio LP _{11b}	>18 dB	20 dB
Fibre Array Connectors	FC/APC or User-Specified †	–
† Single-Mode Fibre Length	> 1 m	–
Few-Mode Fibre Type	OFS 2-Mode Graded Index	–
† Few-Mode Fibre Connector	FC/APC or User-Specified †	–
† Few-Mode Fibre Length	> 1 m	–
Package Dimensions	90 x 20 x 10 mm	–
Operating Temperature	-5 to 70 °C	–
Storage Temperature	-50 to 85 °C	–

[†]Enquire about custom orders.

¹Total insertion loss including connectors.

*Specifications at 1550 nm.

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